ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
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In the Matter of:

Application for Certification for the Carlsbad Energy Center Project

Docket No. 07-AFC-6

M e m o r a n d u m

To: Carlsbad Siting Committee
Commissioner Karen Douglas
Chief Hearing Officer Paul Kramer

Date: February 2, 2012

CC: Galen Lemei, Advisor

From: Richard C. Ratliff, Staff Counsel IV

Subject: **Staff Responses to Comments Made by the Center for Biological Diversity Pertaining to Staff's Greenhouse Gas Emissions Analysis for Carlsbad Energy Center Project (CECP)**

Staff has provided testimony on CECP emissions that have the potential to cumulatively contribute to global warming. Such gases include, but are not limited to, carbon dioxide, and are collectively termed "greenhouse gas" (GHG) emissions. The Center for Biological Diversity (CBD) has commented on the Staff analysis with various criticisms that have been responded to in testimony and at hearings on the matter. However, to further document the response to CBD's comments, Staff provides this further written response to CBD's criticisms. CBD comments are provided in underline, summarized from both written and oral comments.

<u>The PMPD ignores CEQA by adopting a systems theory where all new combined cycle plants with similar characteristics to the Project would need not undergo CEQA analysis for the emissions of greenhouse gases.</u>

Staff's analysis is conducted pursuant to CEQA as part of the cumulative impacts analysis for the project. GHG is clearly a cumulative impact, because an individual

project's emissions are insufficient in and of themselves to cause climate change. Cumulative impacts analysis attempts to look at the "big picture," the greater context within which the project takes place, and how the project will contribute to any cumulative impact, considering all the other cumulative contributions to the problem. It is thus reasonable to analyze a new power plant's GHG emissions in the context of the electricity system as a whole.

CEQA does not require staff to analyze cumulative impacts with "tunnel vision," considering the negative impacts of a proposed project without concern for the bigger perspective. The broader perspective accounts for the positive effects that occur from modernizing the existing electricity system that increase its efficiency, and the increased flexibility to integrate renewable sources of generation. Such an approach addresses the true cumulative nature of the project's impact. If the overall impact of a project is a net reduction in the cumulative impact, the project's contribution to such an impact is not significantly adverse, and should not be described as such.

CEQA requires that a project's individual GHG emissions be quantified and discussed in staff's analysis, which is then expanded to encompass the project's emissions in the cumulative context under real world operating scenarios. Staff's analysis accounts for the fact that a new, more efficient electric generator, such as a new natural gas project, will increase overall efficiency and result in real-time reductions of GHG emissions elsewhere in the system. Thus, the concept is consistent with the CEQA Guidelines, which require that a lead agency consider "[t]he extent to which the project may increase *or reduce* greenhouse gas emissions *as compared to the existing environmental setting.*" (CEQA Guidelines, § 15064.4(b)(1) [emphasis added].) CBD may disagree with Staff's conclusion that real-time reductions will result from an efficient new facility, but this is a factual issue that has been addressed at length by evidentiary submissions, allowing the Commission to weigh the evidence provided and reach a conclusion. The analytic approach for determining the impact is entirely consistent with CEQA and its Guidelines.

<u>The analysis fails to identify or specifically account for the reductions in other greenhouse gas emissions that will supposedly occur as a result of the Project.</u>

CBD's criticism is that Staff's analysis does not attempt to specifically quantify the GHG emissions reductions that would result from a new, more efficient project, and that it does not indicate precisely which other power generators would be displaced in the system dispatch that would result in an overall reduction in GHG emissions. This criticism is factually correct, but entirely misplaced. The electric grid is an integrated electric system with thousands of generating sources coming on to the system or leaving the system at any precise moment. The amount and location of GHG emission reductions that result from displacement of less efficient carbon-based generation varies from minute to minute, hour to hour, day to day. It would thus be impossible to meaningfully determine with any precision the amount or location of GHG emissions displacement that occurs from the addition of a new individual power plant.

For example, calculating the amount or location of emissions reductions would require assumptions regarding the operation of other regional gas-fired plants in California after CECP is added to the electric grid. But the operation of gas-fired plants varies greatly daily, seasonally, and annually, according to weather conditions on a given day, since air conditioning requirements drastically affect demand, and wind and sun will affect wind and solar generation. Moreover, gas-fired displacement will fluctuate according to (among other things) generator maintenance schedules, the availability of imported hydro power (which fluctuates seasonally and annually), new additions of renewable generation, and the need for gas-fired firming to integrate more renewable generation. In addition, the amount of displacement will change (and presumably be reduced) gradually over time, as more efficient gas-generation and more renewable generation is added to the system. All of these variables are constantly shifting, making a micro-level estimate of GHG displacement impossible to meaningfully predict.

However, even if the *amount* of GHG emissions displacement cannot be precisely determined, this in no way undermines Staff's premise that such overall reductions do in fact occur. This is because of how electric system operators dispatch generation resources, and particularly gas-fired resources, dispatching them according to cost of operation, which is almost entirely dependent on the *efficiency with which they consume natural gas*. Thus, the dispatch order will almost always dispatch a new, more efficient generator ahead of older, less efficient ones, thereby reducing the overall "heat rate" of the system and increasing the efficiency with which natural gas is used. As CECP comes on line, older, less efficient gas-generators will operate less or be retired. This includes the Encina 1-3 units nearby (which will be directly retired), but also other gas-generation from Encina units 4-5 and other generators elsewhere, which will operate less when the more efficient CECP becomes available. The Commission has heard extensive expert witness testimony from Staff, the Independent System Operator, and third parties confirming that this is the operating context for gas-fired power plants, and that GHG reductions overall are the inevitable result of a more efficient dispatch order. Thus, both logic and substantial evidence support the conclusions of Staff's analysis.

There is also an increasing body of historical analysis verifying the displacement outcome. The Energy Commission staff's recent analysis, titled "Thermal Efficiency of Gas-Fired Generation in California" (CEC-200-2011-008, August 2011) provides a 10 year review of emissions, confirming that GHG emissions from power-plants have consistently declined due to the construction of more efficient natural gas facilities, which in turn results in the displacement and retirement of older, less-efficient facilities. Specifically, the analysis indicates that between 2001 and 2010, gas-fired generation heat rates improved from 10,330 to 8,566 Btu/kWh as modern combined cycle gas facilities replaced "aging power plants", which often rely on obsolete boiler technology. This has led to an overall efficiency gain of 27 percent in California's gas-fired fleet, and this "heat rate is directly proportional to GHG emissions." (*Id.* at p. 4.) However, there is no meaningful way to determine which new power plant caused which reductions, or to predict exactly where reductions will occur in the future with the integration of new natural gas facilities due to the complexity of the electricity system and its many generators.

As discussed above, Staff's method of analysis is consistent with the recently adopted CEQA Guidelines for determining the significance of GHG emissions. Moreover, in a somewhat different context (traffic impacts), the courts have supported environmental analysis of significant impacts that avoids "a myopic perspective, focusing on the increase in traffic at one segment of the road, while ignoring corresponding decreases at other segments." (*Leonoff v. Monterrey County Board of Supervisors* (1990) 222 Cal.App.3d 1337, 1353.) "In our view, it is consistent with CEQA's concern about significant environmental effects for [the] County to have considered the bigger picture . . . ." (*Ibid.*)

Additional recent case law supports this broader analysis. In *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista*, 197 Cal. App. 4th 327, the court rejected an argument that a proposed Target store would generate additional waste because the petitioners' argument "ignores that the Project eliminated two facilities that generated waste." (*Id.,* at 335.) "Taking into account the elimination of these waste producers, it is more reasonable to assume that the Project will result in a net decrease of waste and the resultant greenhouse gas emissions." (*Ibid.*) This is consistent with the principle of using a broader analysis, looking at the "bigger picture," that the Energy Commission has used for GHG emissions from new power plants.

The *Chula Vista* decision went on to hold that the agency had discretion to use consistency with the Global Warming Solutions Act of 2006 (AB 32) as the significance threshold for its determination of significance for cumulative impact, as opposed to any numerical threshold. (*Chula Vista,*at 336.) Staff has never proposed such a "threshold" because it has concluded that the cumulative impact of CECP is beneficial (i.e., will reduce GHG emissions). However, CECP will also comply with the cornerstone AB 32 measures for the electricity sector (namely "cap and trade" requirements for power generators), and thus will also be in compliance with AB 32 goals and requirements. Thus, the Energy Commission may determine not only that CECP is an actual cumulative benefit to GHG emissions, but also that its impacts are "less than cumulatively considerable," as it "complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of [GHG]." (Cal. Code of Regs., tit. 14, § 15064.4(b)(3).) The plan in question is that created by AB 32, including the regulatory framework for reducing the State's GHG emissions by requiring reductions in the electricity generation sector using "cap and trade" requirements. In addition, CECP's ramping flexibility, allowing better integration of renewable generation, furthers AB 32 goals to enhance the use of renewable generation.

<u>The PMPD concludes that "power plants with the operational flexibility of, and offering the ancillary services provided by the CECP are needed by California to meet its renewable energy policy goals." (PMPD GHG at 16.) This argument is inconsistent with a California ISO study that found that the flexibility of the existing fleet is sufficient for integrating 20 percent renewables and recent CAISO modeling that shows that new plants are not necessary to integrate the 33 percent renewables into the system.</u>

The CAISO "study" referred to currently consists of a dated power point presentation presented during testimony at the CPUC for the Long-Term Procurement Plan. At the December 12, 2011 evidentiary hearing for CECP, the CAISO testified that CECP is needed for both reliability and as firm and flexible power to integrate renewable generation, and explained that the cited LTTP study was inapposite. The CAISO witness testified that his testimony is the official CAISO position.

The CAISO testimony fully supports Staff's analysis that new gas-fired units that are more efficient, more quickly dispatchable, and more flexible in meeting fluctuating generation levels from intermittent renewables, and that CECP will reduce GHG emissions rather than increase them. The CAISO testimony further stated that there is a statewide shortage of gas-fired generation to support renewable integration, buttressing its view that CECP, or some similar flexible project, is needed for renewable integration.

A report authored by the Commission and other state agencies confirms that the Commission does have methods for determining greenhouse gas reductions from the system. "California's Clean Energy Future: Implementation Plan" (dated September 2010) states that "[i]n support of tracking progress towards AB 32 goals, the Energy Commission . . .intends to estimate GHG emissions resulting from the power system using analytic methods to convert resource planning assumptions into GHG emissions." This is the type of analysis the PMPD could have used to determine the greenhouse gases emissions impact of the CECP.

CBD misunderstands the quoted passage, which indicates that the Commission will estimate the overall emissions from the electric system in its entirety. Such a "macro-level" analysis is very different from trying to calculate the impact of adding a specific new power plant, and estimating through modeling assumptions which other power generators might be displaced, during an assumed period of time, to calculate the GHG displacement effect of the new plant. As discussed above, such micro-level modeling results would not be meaningful, as the assumptions would be many and varied, and would not result in any additional information about a specific project. The 10-year study mentioned above provides the "macro-level" analysis that was suggested in the document cited by CBD, and provides system-wide efficiency improvements and corresponding GHG reductions from gas-fired generation.

The PMPD Fails to Provide a Proper Basis for Its Analysis.

Yet, the PMPD claims that it does not need to show the actual displacement of a comparable amount of greenhouse gas emissions. (*Id*. at 15.) In essence, the PMPD urges the public to trust that more greenhouse gases will be reduced throughout the greater electric systems than will be added as a result of the Project….To avoid any further analysis, the PMPD simply relies on Staff's unsupported conclusion that operation of the CECP would displace some unknown number of other, less efficient plants somewhere in the system. The PMPD's net reduction analysis is not supported by substantial evidence.

As discussed above, Staff's analysis explains why new, more efficient projects will displace older, less efficient electricity generators, thereby reducing GHG emissions overall. This is the also the conclusion of the Energy Commission's study (referred to above) of the last 10 years of emissions from the electricity sector showing a distinct decline in emissions as new natural-gas power plants are added. There is no substantial evidence from any party disputing the displacement evidence Staff and the CAISO provided for evidentiary hearings. As discussed above, attempting to quantify with precision the displacement caused by a single new natural gas plant would require so many assumptions as to render the end result virtually meaningless. "CEQA does not require a lead agency to conduct every recommended test and perform all recommended research to evaluate the impacts of a proposed project. The fact that additional studies might be helpful does not mean that they are required." (*Association of* Irritated Residents v. County of Madera (2003) 107 Cal App 4th 1383.)

Using the Western Electric Grid as the Greenhouse Gas Emissions Baseline Fails to Inform the Public and Decisionmakers of the Significant Impact of the Project.

The PMPD's "Western Electric Grid" baseline provides an illusory basis for a finding of no significant adverse impact and masks the actual increased emissions that will occur from this Project. By describing the environmental baseline as the Western Electric Grid, the public and decision makers are not given the information needed to partake in a meaningful analysis of the environmental impacts of CECP. As the California Supreme Court noted, "[a]n approach using hypothetical allowable conditions as the baseline results in 'illusory' comparisons that 'can only mislead the public as to the reality of the impacts and subvert full consideration of the actual environmental impacts,' a result at direct odds with CEQA's intent." (*Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 48 Cal. 4th 310, 322 [quoting *Environmental Planning Information Council v. County of El Dorado* (1982) 131 Cal.App.3d 350, 358].) but this grid baseline is so vague that it is meaningless. The PMPD provides no number for the amount of GHG emissions from the Western Grid and it provides no quantitative analysis of the effect of adding the CECP.

GHG emissions from a particular project do not present a significant adverse direct impact. Rather, the concern is with regard to cumulative impact on a global scale. Emissions in China or Poland have the same general cumulative effect as emissions in California. Thus, a reasonable analysis is not, and cannot be, limited to a particular location or air basin. Because electricity is a connected system and the addition of a plant to the system affects the operation of other plants on the same system, it is reasonable and appropriate to analyze impacts on a system-wide basis. California is not an electrical island, but is part of the broader WECC system; thus, it is reasonable to discuss the integrated electricity system potentially affected by the proposed project. However, the focus of staff's analysis is the project's impact to the electricity system in California, and to the extent feasible staff has limited it to such.

Contrary to CBD's comment, Staff and the CAISO identified the projects that will be displaced by CECP generation as all those existing fossil-fired projects that have higher "heat rates" (lower efficiency levels) than that of CECP, in the CAISO control area specifically, and within the Western Interconnect more generally. This is a rather long list of projects, both in the San Diego region and outside it. The dispatch order based on efficiency was the subject of much expert witness testimony from Staff and the CAISO.

CBD v. SCAQMD is inapposite here. That case involved an analysis using a "baseline" of previously permitted levels, rather than emissions actually currently emitted. The court held that the proper baseline must be current emissions, or a reasonable average of emissions that vary over time, and cannot be maximum permitted levels if those levels were never reflective of actual emissions. This is irrelevant to the issue CBD is addressing in its comments, and to the analysis Staff provided of CECP.

CBD's claim that an analysis based on overall efficiency gains for the electrical system does not inform the public or decision-makers is without merit. The public can understand that measures to incrementally add efficiency to a system is a benefit, not a detriment. If the operator of a fleet of automobiles begins to incrementally replace Hummers with Prius hybrids, the public understands that the fleet will become more efficient, and that such is a benefit, not an adverse impact. It likewise understands that it would be illogical (using the "blinders" referred to above) to say that the addition of a Prius to the auto fleet would be significantly adverse, where the Prius would be used in place of a Hummer. Analogies are always inexact, but this is very similar to the efficiency benefit of new, more efficient power plants based on the latest generation technology, as they displace and gradually replace old boiler electric generators built in the 1950s and 1960s.

CBD would focus only on the emissions of the Prius, and disregard that the more efficient vehicle has reduced overall cumulative impact, not increased it. It would consider only the tailpipe emissions of the single additional vehicle, and disregard offsetting positive impacts (the fleet-wide reduction of GHG emissions). But such a myopic analysis is not required; a project is evaluated as a whole, with both the positive and negative aspects considered in concluding whether it will result in significant, adverse impacts. (*Sunnyvale W. Neighborhood Assn. v. City of Sunnyvale City Council*, 190 Cal. App. 4th 1351, 1382-83 (2010) [stating that nothing prevents an EIR from examining a project's beneficial impacts].) "Myopic perspectives" are disfavored in CEQA analysis. (*Leonoff, supra.*) Moreover, the analysis of greenhouse gas emissions is solely one of cumulative impacts, where the emissions of other past, present, and reasonably foreseeable emissions must also be taken into account. "'Cumulatively considerable' means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (Cal. Code Regs., tit. 14, § 15064, subd. (h)(1).) Thus, CEQA cumulative impact analysis by definition is a "big picture" analysis of project impacts, including beneficial impacts that reduce the cumulative effect. The myopic perspective that CBD advocates is precisely the antithesis of the purpose of the cumulative impact analysis.

The fact that a proposed project would result in the reduced operation of an existing project is directly relevant to such an analysis. As discussed above, the approach taken by Staff and the Commission is consistent with the CEQA Guidelines and CEQA case law. CBD cites to no cases that specifically prohibit the approach taken by staff and the Commission, as it cannot.

The PMPD does not identify the assumptions upon which it relies for the environmental baseline that it does use. "The decision makers and general public should not be forced to sift through obscure minutiae or appendices in order to ferret out the fundamental baseline assumptions that are being used for purposes of the environmental analysis." (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal. App. 4th 645, 659.) For example, the PMPD contains a table that discusses the efficiency of the Project compared to other units in the San Diego area and cites to similar tables in the Final Staff Assessment. (PMPD GHG at 13.) However, nowhere in the PMPD is a there a formula to convert the gains in efficiency to a corresponding amount of greenhouse gas reductions.

As the comment acknowledges, the "baseline" is the efficiency of the system with the existing generators. Such efficiency information (for other fossil-fired generators) is publicly available, and the efficiency of other gas-generating facilities in the region is included (and compared to CECP) in Staff's analysis. Also, as stated earlier, modeling of the displacement of a single new plant to determine the precise reduction in GHG emissions is difficult if not impossible, as the set of less efficient facilities displaced may change hourly, according to fluctuations in the requirements of the electric system. However, Staff and the CAISO have testified that CECP will only run in place of less efficient and non-renewable generation, thereby adding to overall efficiency and reducing overall GHG emissions. Holding everything constant (and assuming that natural gas is used in the new facility and those "on the margin"), the gain in efficiency is equivalent to the reduction in GHG emissions (e.g. a 20 percent improvement in efficiency will result in a 20 percent reduction in GHG emissions per MWh for a power plant.)

The Project Is Not Part of a Statewide Energy Plan nor Part of a Plan to Reduce Greenhouse Gases.

The PMPD, in essence, treats the building of a mid-merit natural gas plant as a part of an existing energy plan, and then evaluates the environmental impacts of CECP based on its impact on the grid generally. Similar efforts have been rejected in a case in which the agency compared a proposed project to an existing plan, rather than the existing environmental setting. (See, e.g., *CBE v. SCAQMD,* 48 Cal.4th 310*; Woodward Park Homeowners Assoc., Inc. v. City of Fresno* (2007) 150 Cal. App. 4th 683, 707-711 [quoting *Environmental Planning & Information Council v. County of El Dorado* (1982) 131 Cal.App.3d 350, 354] ["CEQA nowhere calls for evaluation of the impacts of a proposed project on an existing general plan; it concerns itself with the impacts of the project on the environment, defined as the existing physical conditions in the affected area."].)

Again, CBD's argument is misplaced. Staff's analysis emphasizes the existing environmental setting, and the change to that setting caused by the project. The cases cited are thus inapposite. Staff does not analyze the project as part of an overall plan for future operation of the grid. Staff analyzes the project's impacts to the existing environment in terms of what real-world impacts it would have when interconnected to the system. These impacts are not a result of planning; they are the result of how the CAISO and other dispatching authorities operate the system in the real world. However, as stated above, CECP is consistent with the AB 32 regulatory regime to reduce the State's GHG emissions, and will conform to AB 32 cap and trade requirements.

The Three Part-Test in the Avenal Decision is Too General to Comply with Informational Requirements of CEQA.

CBD does not explain how the Energy Commission's approach is deficient, except to say that the analysis is an improper "quasi-programmatic analysis," and that a proper analysis requires that the Commission disregard its effect on the system and focus solely on the project's stack emissions. As discussed previously, CEQA does not require agencies to ignore the whole of a project's impacts, good or bad, simply because those effects may occur offsite. (*Leonoff v. Monterey Board of Supervisors, supra,* 222 Cal.App. 3d 1337, *Whitman v. Board of Supervisors* (2d. District 1979) 88 Cal.App.3d 604, 625 ["the full environmental impact of a proposed …action cannot be gauged in a vacuum"].) Whether a new natural gas-fired power plant will result in reductions in emissions from other existing power plants is a factual question and one that was the subject of much testimony in the CECP evidentiary hearings.

The CEQA guidelines counsel agencies to consider the following in determining whether a proposed project would result in significant adverse impacts from greenhouse gas emissions:

1. The extent to which the project *may increase or reduce* greenhouse gas emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. (Cal. Code Regs., tit. 14, §15064.4.)

The Energy Commission has not established a threshold of significance for greenhouse gas emissions (and the guidelines do not require an agency to establish such thresholds), and item 2 does not apply. This leaves items 1 and 3, both of which are

addressed extensively in staff's GHG analysis. Staff discusses a project's individual emissions and whether its operation would result in reduced emissions elsewhere. Additionally, Staff discusses a project's conformance with CARB's proposed AB 32 regulations, satisfying item number 3. Even though its impacts on GHG would be cumulatively beneficial, CECP will be required to meet CARB's programmatic "cap and trade" program to abate GHG emissions from power plants. Thus, the Commission's analysis of power plant impacts is consistent with CEQA, and the GHG analysis for CECP complies with CEQA.

The PMPD argues that there is no need for the CEQA analysis to determine the gross amount of greenhouse gases emitted by the Project, because the carbon intensity of the Project is less than the carbon intensity of the electric system, and this will result in a net reduction of greenhouse gases. (PMPD GHG at 11.) However, the PMPD provides no support in CEQA for the proposition that Staff can solely rely on an increase in efficiency to make a finding that substantial new emissions of greenhouse gases are not a significant impact. This type of reasoning was expressly rejected in a federal case brought by the Center that found that the adoption of new national fuel efficiency standards that increased these efficiency standards still requires an analysis of the total emissions of greenhouse gases from the rulemaking even though the efficiency of the vehicle fleets increased. (*Center for Biological Diversity v. National Highway Traffic Safety Admin.* (9th Cir. 2008) 538 F.3d 1172, 1216-1217.)

CBD v. NHTSA is inapposite. That case challenged EPA's issuance of an Environmental Assessment (the NEPA equivalent of a negative declaration) for regulations increasing the stringency of the light truck CAFÉ standards. The court found the cumulative impacts analysis inadequate because it did not "evaluate the 'incremental impact' that these emissions will have on climate change or on the environment more generally in light of other past, present, and reasonably foreseeable actions such as other light truck and passenger automobile CAFE standards." The court held that, when evaluating the impact of proposed regulations, it is not sufficient to show that the proposed regulations will be an improvement over the previous situation; an agency must "provide the necessary contextual information about the cumulative and incremental environmental impacts of the Final Rule in light of other CAFE rulemakings and other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions." (*Id.* at 1217.)

Unlike the federal agency in the cited case, Staff has never contended that it needn't consider GHG impacts, nor quantify direct emissions. Staff's analysis considers project emissions, project effects on the electrical system, and the project's overall cumulative effect on GHG emissions.

Moreover, the GHG analysis at issue here does not involve the establishment of regulations, but rather the analysis of a proposed project. The court in *North Carolina Alliance for Transportation Reform v. USDOT*, 713 F. Supp 2nd 491, held that *CBD v. NHTSA* does not apply to a case-specific analysis, and that the Federal Highway Administration satisfied NEPA when it concluded that it could not usefully consider

greenhouse gas emissions in an Environmental Impact Statement for a proposed roadway because of the global nature of the problem and, due to the interactions between elements of the transportation system as a whole, emissions analyses would be less informative than ones conducted at regional, state, or national levels. (*Id* at 519.) The decision also cited *Audubon Naturalist Society of The Central Atlantic States, Inc. v. U.S. Department of Transportation*, 524 F.*Supp*.2d 642, 708 (D.Md.2007). There, plaintiffs alleged a violation of NEPA in a federal highway project for defendants' failure to consider its impact on global climate change. The court found that the government agencies did consider this issue but concluded that analysis of greenhouse gas emissions on a project-level basis was not useful because no national regulatory thresholds had been established. (*Ibid.*) The court concluded that the defendants did not act arbitrarily or capriciously in concluding that no mitigation was needed "for the supposed impacts of a single stretch of highway on the global problem of climate change." (*Ibid*.)

The court also dismissed plaintiff's assertions that the new roadway would result in an increase in GHG emissions due to the likely increase in vehicle miles traveled of 1.8 percent (218,000 miles traveled countywide daily).The court held that this assertion failed to consider other important variables, including increased speeds on the Northern Beltway, improved vehicle fuel economy, and the use of cleaner fuels. Citing to the FHWA's Spreadsheet Model Induced Travel Estimation (known also as "SMITE") models, the SFEIS/FEIS showed that the increase in vehicle miles traveled will largely be absorbed by the new freeway components and shifting vehicles from other roadways. (*Id*. at 4-243.) The Northern Beltway would have fewer acceleration events that contribute substantially to negative air quality impacts for ozone precursors and carbon monoxide. (Id.) Defendants concluded that, based on their modeling, the amount of induced travel resulting from the Northern Beltway was "not appreciable." (*Ibid.*) Citing deference to an agency making predictions based on its expertise, the court found that no violation of NEPA occurred. (*Id.* at 520-521.)

This case not only found that *CBD v. NHTSA* is limited to situations involving rulemakings, it also reinforces the idea that both negative and positive impacts of a proposed project can and should be analyzed in order to reach a conclusion about whether a project's adverse impacts rise to the level of significance. The court deferred to the agency's determination that the positive aspects of the new roadway (*e.g.,* fewer acceleration events, shifting vehicles to other roadways) served to offset any potential impacts from an increase in vehicle miles traveled. This is similar to staff's conclusion that the predictable reduction in generation from existing older natural gas facilities would more than offset any increase in GHG emissions from a proposed new natural gas plant.

<u>Moreover, there is no analysis of how the project will affect the energy system over the thirty-year lifetime of the project. Even if the Project operates at an average efficiency greater than the plants on the current grid, there is no analysis of whether building this new source of greenhouse gases will comply with AB 32 and the state of California's goal of eighty percent reduction of GHGs by 2050.</u>

The positive contribution of this resource (lower GHG emissions) that occur on Day 1 of operation is guaranteed to continue over every year of project life regardless of either an RPS or cap-and-trade (or, should it occur, a carbon tax) system is in place. In other words, the "efficiency dispatch" will continue to dictate the amount of operation of each project. If at Year 30, a project has become relatively less efficient, or more renewable generation has been added, the project will operate less and system GHG emissions per MWh will reflect both the additions of more efficient projects and the lower operation of CECP. In any case, new gas-fired generation such as CECP will not interfere with the attainment of the state's 2050 goals for GHG emissions and renewable energy. Rather, such projects make such attainment more likely.

The Cumulative Impacts Analysis for Greenhouse Gas Emissions Is Inadequate Because It Fails to Account for All Past, Present, and Probable Future Projects.

As the PMPD repeatedly states, CECP is part of a much larger system, but the PMPD does not acknowledge the many other fossil fuel plants have already been built and licensed in California by this Commission, and there is no mention of new plants in the rest of the Western grid. (See generally PMPD GHG at 1-18.) However, the PMPD contains no such list, and the omission of both past and probable future projects from the cumulative impacts analysis hides the true significance and severity of the impacts of CECP.

Climate change is a global impact. Unlike other more typical cumulative impacts, it is the result of all GHG emissions, wherever emitted. A few coal plants in China may have GHG emissions greater than all point source GHG emissions in California. Attempting to itemize all contributors in an analysis of cumulative impacts of GHG could involve listing every current and foreseeable future emitter of GHG on earth, if taken to absurd levels. Macro level discussions of GHG emissions by nation and state, or by energy use sector, are available from various international, national, and state sources, including the Energy Commission. However, major GHG gas sources, both existing and foreseeable, are so numerous that creating the "list" that CBD suggests would be both impossible and unproductive, and would not better inform either the public or the decision-makers about the cumulative impacts of the CECP project.

The Staff analysis includes existing gas-fired generators in the San Diego region, and is supplemented to reference foreseeable new projects. Such a list should be sufficient for cumulative impact purposes, to the extent that any list can be meaningful.

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA
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APPLICATION FOR CERTIFICATION FOR THE *CARLSBAD ENERGY CENTER PROJECT*

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DECLARATION OF SERVICE

I, Mineka Foggie, declare that on, February 2, 2012, I served and filed copies of the attached Staff Response to Comments, dated February 2, 2012. The original document, filed with the Docket Unit or the Chief Counsel, as required by the applicable regulation, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: [www.energy.ca.gov/sitingcases/carlsbad/ index.html].

The document has been sent to the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit or Chief Counsel, as appropriate, in the following manner:

(*Check all that Apply*)

For service to all other parties:

X Served electronically to all e-mail addresses on the Proof of Service list;

____ Served by delivering on this date, either personally, or for mailing with the U.S. Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses NOT marked "e-mail service preferred."

AND

For filing with the Docket Unit at the Energy Commission:

X by sending an original paper copy and one electronic copy, mailed with the U.S. Postal Service with first class postage thereon fully prepaid and e-mailed respectively, to the address below (preferred method); *OR*

____ by depositing an original and 12 paper copies in the mail with the U.S. Postal Service with first class postage thereon fully prepaid, as follows:

CALIFORNIA ENERGY COMMISSION – DOCKET UNIT
Attn: Docket No. 08-AFC-11
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
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OR, if filing a Petition for Reconsideration of Decision or Order pursuant to Title 20, § 1720:

____ Served by delivering on this date one electronic copy by e-mail, and an original paper copy to the Chief Counsel at the following address, either personally, or for mailing with the U.S. Postal Service with first class postage thereon fully prepaid:

California Energy Commission
Michael J. Levy, Chief Counsel
1516 Ninth Street MS-14
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I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

Originally Signed by
Mineka Foggie